

WHAT IS CLAIMED IS:

- ✓1. In a payment processing method using a payment processing system, said payment processing method comprising:
  - receiving login information, payment information , and authentication information, said authentication information generated by a user using said payment information and first identity confirmation information;
  - extracting second identity confirmation information associated with said login information from a database; and
  - determining whether a request for a payment is valid using said second identity confirmation information and said payment information and said authentication information.
2. A payment processing method as described in claim 1 wherein said authentication information is a hash value generated using a hash function.
3. A payment processing method as described in claim 1 wherein said login information is credit card number.
- ✓4. In a payment processing method using a payment processing system, said payment processing method comprising:
  - receiving login information and authentication information, said authentication information generated by a user using payment information and first identity confirmation information;
  - extracting second identity confirmation information associated with said login information from a database; and
  - determining payment information using said second identity confirmation information and said authentication information.
- ✓5. In a payment processing method in a financial institution system that is connected to a creditor system through a communication network and that responds to payment requests sent by way of said communication network, a payment processing method comprising:

receiving billing information generated by said creditor system and authentication information generated by a debtor which is to make payment to said creditor, said authentication information varying according to ordering information; and  
determining whether or not a payment request is valid based on said billing information and said authentication information.

6. A payment processing method as described in claim 5 wherein:  
said authentication information is information from which a section of said ordering information is abbreviated; and  
said financial institution system determines whether or not said payment request is valid by abbreviating a section of billing information generated by said creditor system and making a comparison with said authentication information.

7. A payment processing method as described in claim 5 wherein said authentication information is a hash value generated using a hash function.

✓ 8. In a payment processing method in a financial institution system that is connected to a merchant system through a communication network and that responds to payment requests sent by way of said communication network, a payment processing method comprising:

using a database to manage login information of users making payments through said financial institution in association with identity confirmation information for said users;

receiving from said merchant system login information identifying a user of said users making a payment request to a merchant, billing information for said payment request, and authentication information generated by said user using ordering information and said identity confirmation information, wherein said ordering information is a counterpart of said billing information;

extracting identity confirmation information associated with said login information from said database; and

determining whether said payment request is valid or not using said identity confirmation information and said billing information and said authentication information.

9. A payment processing method as described in claim 8 wherein said payment request is rejected if billing information sent from said merchant system is different from ordering information extracted from said authentication information.

10. A payment processing method as described in claim 8 wherein said billing information is billing amount information, said order information is payment amount information, and said authentication information is determined through calculations according to predetermined conditions using said payment amount information and said identity confirmation information.

✓11. In a payment processing method in a financial institution system that is connected to a user system and a merchant system through a communication network and that responds to a payment request of a user sent by way of said communication network, a payment processing method comprising:

using a database to manage a user ID of said user making a payment through said financial institution in association with first identity confirmation information and account number for said user;

receiving said user ID and billing amount information, including a first payment amount information, from said merchant system, and authentication information generated by said user system using said first identity confirmation information and said first payment amount information;

extracting second identity confirmation information and said account number associated with said user ID from said database;

calculating a second payment amount information using said authentication information and said second identity confirmation;

determining whether said payment request is valid comparing said billing amount information from said merchant system and said second payment amount information; and

wherein if said billing amount information sent from said merchant matches said second payment amount information, payment processing is performed using said account number.

✓12. In a payment processing method in a financial institution system that is connected to a user system and a merchant system through a communication network and that

responds to a payment request sent by way of said communication network, a payment processing method comprising:

receiving an user ID and billing amount information from said merchant system, said billing amount information including a first payment amount information;

sending a first information to said merchant system and managing said first information in association with said user ID;

receiving said user ID and a second information generated by said user using said first information, a first identity confirmation information, and said first payment amount information;

extracting a second identity confirmation information associated with said user ID from a database;

calculating second payment amount information using said first information and said second information and said second identity confirmation information; and

determining whether said payment request is valid by comparing said billing amount information from said merchant system and said second payment amount information.

13. A payment processing method as described in claim 12 wherein said first information is variable information.

✓14. In a payment processing system that is connected to a merchant system by a communication line and that responds to payment requests sent through said communication line, said payment processing system comprising:

a storage device storing login information and first identity confirmation information for a user, said user making payments through said payment processing system;

a communication device receiving from said merchant system said login information identifying said user making payment to said merchant system, billing information, and authentication information generated by said user using ordering information and a second identity confirmation information; and

a control device extracting first identity confirmation information associated with said login information from said storage device and for determining whether

said payment request is valid or not using said first identity confirmation information, said billing information, and said authentication information.

✓15. In a system sending payment requests to a financial institution system connected by communication means, said system comprising:  
means for generating authentication information that changes based on payment contents; and  
means for sending said authentication information.

16. A system as described in claim 15 wherein said authentication information is information wherein a portion of information generated using identity confirmation information for a user making payment through said financial institution and said payment contents is abbreviated

✓17. In a system that is connected to a buyer system and a financial institution system by communication line, a system comprising:  
a storage device storing a list of financial institutions through which payments are made, and a transaction with said buyer system;  
a communication device receiving from said buyer system information an identified financial institution system of said list of financial institutions, login information identifying a buyer making a payment, and authentication information, said authentication information generated by said buyer system using ordering information and identification confirmation information, and sending to said identified financial institution system said login information, said authentication information and said billing information; and  
a control device generating said billing information based on said transaction.

✓18. A method in a computer system for displaying a payment transaction by a buyer ordering an item from a merchant, wherein said merchant is paid for said order by a financial institution, said method comprising:  
displaying a first field comprising order information;  
displaying a second field comprising a user ID of said buyer at said financial institution; and

displaying a third field comprising a payment amount associated with said order information; and

wherein a one-time password is generated by said buyer using said payment amount, and wherein said one-time password and said user ID are sent to said financial institution.

19. The method of claim 18 further comprising displaying a passphrase generated by said financial institution and wherein said one-time password is generated by said buyer using said payment amount and said passphrase.

✓ 20. In a computer readable medium storing a payment processing program used in a financial institution system that is connected to a merchant system by a communication network and that responds to payment requests sent through said communication network, said computer readable medium storing a payment processing program comprising:

a code for using a database to manage an user ID of a user making a payment through said financial institution in association with first identity confirmation information for said user;

a code for receiving from said merchant system said user ID identifying a user making said payment to said merchant, billing information for said payment, and authentication information generated by said user using ordering information and second identity confirmation information; and

a code for determining whether said payment request is valid using said first identity confirmation information and said ordering information and said authentication information.